

## REMARKS

By this amendment, applicants have cancelled claims 1 - 8 without prejudice or disclaimer.

Applicants note the Examiner has withdrawn claims 16 - 23 from consideration. In support of the withdrawal of claims 16 - 23, the Examiner has alleged these claims to be independent or distinct from the invention originally claimed, and has alleged the originally present invention to be constructively elected. The withdrawal of claims 16 - 23 and the allegations in support thereof are respectfully traversed.

In the first place, the originally presented claims included claim 6 drawn to "[a]pplication of the device as claimed in claim 1 for analysis of hydrocarbons carried along by a drilling fluid after drilling in a reservoir rock." It is submitted claims 16 - 23 are directed to the same invention as originally presented claim 6, albeit in somewhat different format.

Moreover, the only reason given by the Examiner in support of the allegation that claims 16 - 23 are directed to an invention that is independent or distinct from the invention originally claimed is that claims 16 - 23 are directed to a method for analysis of hydrocarbons whereas the originally submitted claims are directed to a device. Even ignoring the fact that claim 6 was directed to application of the device, not to the device itself, the Examiner has not demonstrated even the one-way distinctness necessary to support a restriction requirement between claims directed to a process and claims directed to an apparatus for its practice. "Process and apparatus for its practice can be shown to be distinct inventions, if either or both of the following can be shown: (A) that the process *as claimed* can be practiced by another materially different apparatus or by

hand; or (B) that the apparatus *as claimed* can be used to practice another and materially different process." Manual of Patent Examining Procedure, (MPEP) 806.05(e). The Examiner has not shown either (A) or (B). Accordingly, the one-way distinctness needed to support the restriction requirement has not been shown and, accordingly, reconsideration and withdrawal of the restriction requirement are requested.

Claims 1 - 15 stand rejected under 35 USC 103(a) as allegedly being unpatentable over United States Patent No. 5,749,942 to Mattis et al in view of United States Patent No. 5,566,720 to Cheney et al. Applicants traverse this rejection and request reconsideration thereof.

The rejected claims relate to an analysis and/or measuring device comprising means for extracting, in the gaseous form, hydrocarbons contained in a liquid drilling fluid after drilling in a reservoir rock, means for transporting the extracted gases and means intended for analysis and measurement of these extracted gases. The present invention represents an improvement in such an analysis and/or measuring device in that the transport means include a tubular line comprising an inner tube made from plastics material chosen to limit retention of traces of gaseous hydrocarbon. The tubular line is typically several tens of meters long, e.g., 50 meters, separating the wellhead from the analysis and measurement means that are typically situated in a mud logging shelter separate from the extractor. Retention, adsorption and absorption phenomena in the tubular line can lead to erroneous qualitative analysis results and make quantification difficult or even impossible. See, the paragraph bridging pages 1 and 2 of applicants' specification. By choosing the plastics material from which at least

an inner tube of the tubular line is made, applicants can limit the retention, adsorption and absorption phenomena with respect to the trace hydrocarbons. Such is neither disclosed nor suggested by either Mattis et al or Cheney et al.

The patent to Mattis et al discloses an apparatus and method for extracting gas from a liquid containing dissolved gas. It is disclosed that the invention is especially useful for separating the dissolved gas(es) which accumulate in a power transformer's oil (usually silicon or hydrocarbon oil) as the transformer ages, enabling them to be analyzed. There is no disclosure and absolutely no suggestion of any means for extracting, in the gaseous form, hydrocarbons contained in a liquid drilling fluid after drilling in a reservoir rock, as presently claimed. There is quite a difference between a liquid drilling fluid from reservoir rock drilling and transformer oil. The composition of the mud from drilling in a reservoir rock (in terms of viscosity, mineral colloids, additives, etc.) makes the design of the Mattis et al device unworkable. Moreover, the dissolved gas in the transformer oil of Mattis et al results from the degradation of the base liquid whereas, according to the present invention, the gas comes from the drilled reservoir. Because of these differences, it is submitted one of ordinary skill in the art would not have applied or modified the Mattis et al device for analysis and/or measuring of a liquid drilling fluid after drilling in a reservoir rock and have included, in such a device, means for extracting, in the gaseous form, hydrocarbons contained in a liquid drilling fluid after drilling in a reservoir rock. Thus, the Mattis et al patent does not disclose and would not have suggested the analysis and/or measuring device of the present invention, regardless of the choice of plastics material for the tubular line.

The patent to Cheney et al relates to an elongated fuel and vapor tube having

multiple layers. The tube is disclosed to be for conveying fluids containing hydrocarbons and has an inner surface capable of prolonged exposure to the hydrocarbon-containing fluid made up of a melt processible fluoroplastic terpolymer composed of a polyfluorinated alkylene, and  $\alpha$ -fluoro-olefin and a fluorinated vinyl compound. The tube is disclosed to be for use in a motor vehicle, in particular, as a fuel line or vapor recovery line in a motor vehicle. There is absolutely no suggestion in Cheney et al or in any of the prior art to use such a tube with the device of Mattis et al or in an analysis and/or measuring device as presently claimed. Accordingly, there would have been no motivation to combine the teachings of Mattis et al and Cheney et al in the manner urged by the Examiner. In addition, even the combined teachings of Mattis et al and Cheney et al would not have suggested the presently claimed invention since the combined teachings would not have suggested means for extracting, in the gaseous form, hydrocarbons contained in a drilling fluid after drilling in a reservoir rock, as presently claimed.

Moreover, the present invention solves the problems of retention, adsorption and absorption phenomena in the tubular line separating the well head from the analysis and measurement means, the tubular line being several tens of meters long (see claim 15), e.g., 50 meters long. The problems inherent in the use of such a tubular line are not disclosed by either Mattis et al or Cheney et al and the solution of the present invention is certainly not suggested. Accordingly, the presently claimed invention is patentable over the proposed combination of Mattis et al and Cheney et al.

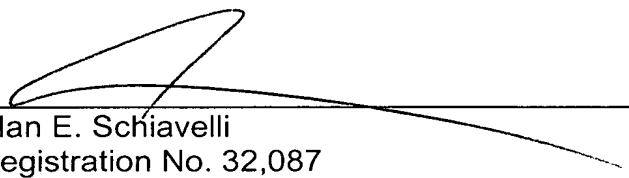
In view of the foregoing amendments and remarks, reconsideration and withdrawal of the restriction requirement and favorable reconsideration and allowance of

all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 612.40180X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Alan E. Schiavelli  
Registration No. 32,087

AES/jla  
(703) 312-6600